REMARKS

Claims 1, 3-28, and 30-51 were pending in the present application. Claims 12 and 38 have been cancelled without prejudice. Applicant has amended Claims 1 and 28 to recite features along the lines of former dependent Claims 12 and 38, respectively. Therefore, these revisions introduce no new matter.

Claims 1, 3-11, 13-28, 30-37, and 39-51 are for consideration upon entry of the present Amendment. Applicant requests favorable consideration of this response and allowance of the subject application based on the following remarks.

Applicant's response and remarks after Final are appropriate under 37 C.F.R. §1.116 because they address the Office's remarks in the Final Action, and thus could not have been presented earlier. In addition, the remarks should be entered to place the application in better form for appeal.

Withdrawn: Claim Rejections, Double Patenting and Claim Objections

Applicant appreciates Examiner's withdrawal of the rejections under 35 USC §112, second paragraph, §101, and §102(e) in the previous Office Action. Furthermore, Applicant appreciates Examiner's withdrawal of the provisional rejection under 35 U.S.C. §101 as claiming the same invention under double patenting.

Claim Rejections 35 U.S.C. §103

A.   Claims 1, 3-6, 8, 10, 15, 16, and 23-27 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Publication No. 20040158589 A1 to Liang et al.

(hereinafter "Liang") in view of U.S. Patent No. 6,816,956 B1 to Benayon et al. (hereinafter "Benayon").

    B.   Claim 7 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Liang et al. (hereinafter "Liang") in view of Benayon, and further in view of U.S. Publication No. 20030056076 A1 to Cook et al. (hereinafter "Cook").

    C.   Claims 9 and 13 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Publication No. 20040158589 A1 to Liang et al. (hereinafter "Liang") in view of Benayon, and further in view of U.S. Patent No. 7,007,269 B2 to Sluiman et al. (hereinafter "Sluiman").

    D.   Claim 11 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Publication No. 20040158589 A1 to Liang et al. (hereinafter "Liang") in view of Benayon, and further in view of U.S. Patent No. 6,915,457 B1 to Miller (hereinafter "Miller").

    E.   Claims 12 and 21 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Publication No. 20040158589 A1 to Liang et al. (hereinafter "Liang") in view of Benayon, and further in view of U.S. Patent No. 6,457,142 B1 to Klemm et al. (hereinafter "Klemm 142").

    F.   Claim 14 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Publication No. 20040158589 A1 to Liang et al. (hereinafter "Liang") in view of Benayon, and further in view of U.S. Publication No. 20030167421 A1 to Klemm et al. (hereinafter "Klemm 421").

    G.   Claims 17-20 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Publication No. 20040158589 A1 to Liang et al. (hereinafter "Liang") in view of

Benayon, and further in view of U.S. Patent No. 5,909,580 to Crelier et al. (hereinafter "Crelier").

H.   Claim 22 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Publication No. 20040158589 A1 to Liang et al. (hereinafter "Liang") in view of Benayon, and further in view of U.S. Publication No. 20030093433 A1 to Seaman et al. (hereinafter "Seaman).

I.   Claims 28, 30-32, 34, 36, 41, and 48-51 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Publication No. 20030033443 A1 to Igotti (hereinafter "Igotti") in view of U.S. Publication No. 20040158589 A1 to Liang et al. (hereinafter "Liang") and further in view of Benayon.

J.   Claim 33 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Publication No. 20030033443 A1 to Igotti (hereinafter "Igotti") in view of Benayon, and further in view of U.S. Publication No. 20030056076 A1 to Cook et al. (hereinafter "Cook").

K.   Claims 35 and 39 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Publication No. 20030033443 A1 to Igotti (hereinafter "Igotti") in view of Liang, and further in view of Benayon as applied to Claim 28, and further in view of U.S. Patent No. 7,007,269 B2 to Sluiman et al. (hereinafter "Sluiman").

L.   Claim 37 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Publication No. 20030033443 A1 to Igotti (hereinafter "Igotti") in view of Liang, and further in view of Benayon as applied to Claim 28, and further in view of U.S. Patent No. 6,915,457 B1 to Miller (hereinafter "Miller").

M.   Claims 38 and 46 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Publication No. 20030033443 A1 to Igotti (hereinafter "Igotti") in view of Liang, and further in view of Benayon as applied to Claim 28, and further in view of U.S. Patent No. 6,457,142 B1 to Klemm et al. (hereinafter "Klemm").

N.   Claim 40 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Publication No. 20030033443 A1 to Igotti (hereinafter "Igotti") in view of Liang, and further in view of Benayon as applied to Claim 28, and further in view of U.S. Publication No. 20030167421 A1 to Klemm et al. (hereinafter "Klemm 421").

O.   Claims 42-45 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Publication No. 20030033443 A1 to Igotti (hereinafter "Igotti") in view of Liang, and further in view of Benayon as applied to Claim 28, and further in view of U.S. Patent No. 5,909,580 to Crelier et al. (hereinafter "Crelier").

P.   Claim 47 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Publication No. 20030033443 A1 to Igotti (hereinafter "Igotti") in view of Liang, and further in view of Benayon as applied to Claim 28, and further in view of U.S. Publication No. 20030093433 A1 to Seaman et al. (hereinafter "Seaman").

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations (see, MPEP §2142).

Without conceding the propriety of the stated rejections, and only to advance the prosecution of this application, Applicant has amended **independent Claim 1** to recite features along the lines of dependent Claim 12. Accordingly, Claim 12 has been cancelled, thereby rendering moot the rejection of that claim. Claim 12 is now represented as independent Claim 1, which recites:

> A computer readable medium comprising computer-program instructions executable by a processor and implementing instructions for:
>
> **a runtime hosting interface comprising a host abstraction interface (HAI), the HAI corresponding to execution environment abstraction(s) supported by a host application, at least one specific interface or object corresponding to a specific HAI accessible by a runtime** during execution of runtime managed code and responsive to an action or event associated with an identified HAI, the HAI providing an interface for the runtime to configure host execution environment parameters and/or to notify the host application of a runtime event; ~~and~~
>
> **the HAI providing a pointer interface for the runtime with a pointer to an object associated with the pointer interface, the object for calling by the runtime responsive to a specified event or criteria; and**
>
> wherein the HAI comprises an interface for the runtime to:
> queue a thread/task to a host application implemented thread pool;
>
> set a size of the host application implemented thread pool; and/or
> query the host application implemented thread pool.

References Fail to Teach or Suggest HAIs, Queuing, Setting, and Querying

First, Applicant submits that the evidence relied upon by the Office does not support the rejections made under 35 U.S.C. §103(a). Liang describes a profiler communicating with a virtual machine without regard to the specific implementation of the virtual machine (para. [00012]). In Liang, Java Virtual Machine Profiler Interfaces (JVMPI) are used for tool vendors to develop profilers that work in conjunction with Sun's Java virtual machine implementation (para. [0095]). The evidence shows Liang fails to

teach or suggest "a runtime hosting interface comprising a host abstraction interface (HAI), the HAI corresponding to execution environment abstraction(s) supported by a host application, at least specific interface or object corresponding to a specific HAI accessible by a runtime", as recited in Claim 1.

Benayon describes control and administration of the supply of memory managed in multiple heaps to a runtime library (Abstract). In Benayon, exhausted is a pointer to a callback function that will be issued by the runtime library (col. 5, lines 60-62). Therefore, the evidence shows Benayon fails to teach or suggest "an interface of the HAI provides the runtime with a pointer to an object associated with the interface, the object for calling by the runtime responsive to a specified event or criteria", as recited in Claim 1.

Applicant asserts Klemm '142 fail to compensate for the deficiencies of Liang and Benayon. Klemm '142 is directed towards fault monitoring and performance monitoring for target application programs (Abstract). Quoting the cited portions from Klemm '142, "causes the supervisor agent 202 to queue up thread descriptor and block thread execution (suspension)", (col. 15, lines 20-21). Furthermore, Applicant directs the Office to Klemm '142 which defines "a supervisor agent is a shared library and attaches to the Java virtual machine through a JVMPI and a Java Native Interface" (col. 14, lines 26-28). In contrast, Applicant's Claim 1 recites "the HAI comprises an interface for the runtime to: queue a thread/task to a host application implemented thread pool; set a size of the host application implemented thread pool; and/or query the host application implemented thread pool". Thus, Klemm '142 merely describes queuing by a supervisor agent, which is a shared library, while Applicant's Claim 1 recites to queue, to set a size, and to query the host

application implemented thread pool. These are not the same features. Thus, Klemm '142 does not provide what is missing from Liang and Benayon to support a §103 rejection.

Consequently, Applicant submits that the evidence relied upon by the Office is insufficient to support a *prima facie* case of obviousness of the features recited in Claim 1.

Modification Renders Reference Unsatisfactory for Intended Purpose

Second, the MPEP states, "if proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is <u>no suggestion or motivation to make the proposed modification</u>" (MPEP §2143.01 V.) For example, using the user control of memory heaps of Benayon would render Liang unsatisfactory for its intended purpose. In particular, the profile interface of Liang would be rendered unsatisfactory to support garbage collection memory systems, if modified by the teachings of Benayon. The modification presented would render Liang inoperable in monitoring and tracing of events that occur during run-time to provide information for garbage collection. Rather, Benayon relies on user control. Thus, there can be no motivation to combine the references as proposed.

The Cited Art Provides No Suggestion or Motivation to Modify/Combine the References

Third, to establish a *prima facie* case of obviousness, there must be some <u>suggestion or motivation</u>, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, <u>to modify the reference or to combine reference teachings</u> (MPEP §2142). The Office stated the motivation for modifying the systems of Liang and Benayon with the teaching of Klemm '142 is that "the teaching of Klemm '142

would improve the system of Benayon and Liang by providing a method for determining when to suspend and subsequently queue a thread" (Office Action, pages 10-11). However, there is nothing in any of the references that would suggest this motivation. Furthermore, Klemm '142 would <u>not</u> improve the system of Liang and Benayon but rather limit their systems as Klemm '142 uses a supervisor agent, which is a shared library attached to a Java Virtual Machine Profiler Interface to queue and suspend a thread. Therefore, there is no suggestion or motivation to combine the three references. The asserted motivation relies on hindsight without evidence of teaching or suggestion to propose the suggested combination. Therefore, this rejection is improper for this additional reason.

Independent Claim 28 is directed to a computing device respectively, and is allowable for reasons similar to those discussed above with respect to Claim 1. Accordingly, Applicant requests that the §103 rejections be withdrawn.

Dependent Claims 3-11, 13-27, 30-37, and 39-51 depend directly or indirectly from one of independent Claims 1 and 28 and are allowable by virtue of this dependency. These claims are also allowable for their own recited features that, in combination with those recited in Claim 1, are not taught, or suggested by Liang, Benayon, and Klemm '142. Applicant respectfully requests withdrawal of the §103 rejections.
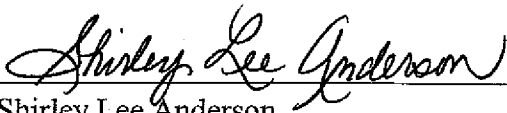
Applicant respectfully submits that the cited references do not render the claimed subject matter obvious and that the claimed subject matter, therefore, are allowable over the cited references. For all of these reasons, the §103(a) rejection of these claims is improper and should be withdrawn.

Conclusion

The pending Claims 1, 3-11, 13-28, 30-37, and 39-51 are in condition for allowance. Applicant respectfully requests reconsideration and prompt allowance of the subject application. If any issues remain unresolved that would prevent allowance of this case, the Examiner is requested to contact the undersigned attorney to resolve the issue.

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Dated: _1-30-2007_   By: _Shirley Lee Anderson_

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